

Test Result for BGP- Route Filters

Thursday, 30 March 2023 10:51 AM

Case 1 : create a gateway with Export Route filter

```
resource ibm_dl_gateway "test_dl_gateway" {
  bgp_asn = 64999
  global = true
  metered = false
  name = "gw_route_filters_testing-dals03"
  speed_mbps = 1000
  type = "connect"
  port = "dc7fdcf4-7d0e-461f-ba48-b67c174034be"
  export_route_filters {
    action = "permit"
    prefix = "10.10.9.0/24"
    ge = 27
    le = 28
  }
}
data "ibm_dl_export_route_filters" "test_dl_export_route_filters" {
  gateway = ibm_dl_gateway.test_dl_gateway.id
}
output "instance_exportroutefilters" {
  value = data.ibm_dl_export_route_filters.test_dl_export_route_filters
}
data "ibm_dl_export_route_filter" "test_dl_export_route_filter" {
  gateway = ibm_dl_gateway.test_dl_gateway.id
  id = data.ibm_dl_export_route_filters.test_dl_export_route_filters.export_route_filters[0].export_route_filter_id
}
output "instance_exportroutefilter" {
  value = data.ibm_dl_export_route_filter.test_dl_export_route_filter
}
```

sushmitham@sushmithas-MacBook-Pro terraform % terraform plan

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:

```
+ create
<= read (data resources)
```

Plan: 1 to add, 0 to change, 0 to destroy.

Changes to Outputs:

```
+ instance_exportroutefilter = {}
+ instance_exportroutefilters = {}
```

Apply complete! Resources: 1 added, 0 changed, 0 destroyed.

Outputs:

```
instance_exportroutefilter = {
  "action" = "permit"
  "before" = tostring(null)
  "created_at" = "2023-03-30T05:43:19.000Z"
  "gateway" = "ab937a1c-aa74-4fcc-a5a7-de2f0e3796d4"
  "ge" = 27
  "id" = "0f46765f-9ae7-4b48-b8fc-9618e6bd9cda"
  "le" = 28
  "prefix" = "10.10.9.0/24"
  "updated_at" = "2023-03-30T05:43:19.000Z"
}
instance_exportroutefilters = {
  "export_route_filters" = tolist([
    {
      "action" = "permit"
      "before" = ""
      "created_at" = "2023-03-30T05:43:19.000Z"
      "export_route_filter_id" = "0f46765f-9ae7-4b48-b8fc-9618e6bd9cda"
      "ge" = 27
      "le" = 28
      "prefix" = "10.10.9.0/24"
      "updated_at" = "2023-03-30T05:43:19.000Z"
    },
  ])
  "gateway" = "ab937a1c-aa74-4fcc-a5a7-de2f0e3796d4"
  "id" = "2023-03-30 05:44:08.529872 +0000 UTC"
}
```

Case 2: modify export route filter

```
resource ibm_dl_gateway "test_dl_gateway" {
  bgp_asn = 64999
  global = true
  metered = false
  name = "gw_route_filters_testing-dals03"
  speed_mbps = 1000
  type = "connect"
  port = "dc7fdcf4-7d0e-461f-ba48-b67c174034be"
  export_route_filters {
    action = "deny"
    prefix = "10.10.9.0/24"
    ge = 29
    le = 30
  }
}
sushmitham@sushmithas-MacBook-Pro terraform % terraform plan
ibm_dl_gateway.test_dl_gateway: Refreshing state... [id=ab937a1c-aa74-4fcc-a5a7-de2f0e3796d4]
```

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:

~ update in-place
 <= read (data resources)

Plan: 0 to add, 1 to change, 0 to destroy.

```
sushmitham@sushmithas-MacBook-Pro terraform % terraform apply
ibm_dl_gateway.test_dl_gateway: Refreshing state... [id=ab937a1c-aa74-4fcc-a5a7-de2f0e3796d4]
```

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:

~ update in-place
 <= read (data resources)

Apply complete! Resources: 0 added, 1 changed, 0 destroyed.

Outputs:

```
instance_exportroutefilter = {
  "action" = "deny"
  "before" = tostring(null)
  "created_at" = "2023-03-30T06:02:11.000Z"
  "gateway" = "ab937a1c-aa74-4fcc-a5a7-de2f0e3796d4"
  "ge" = 29
  "id" = "db70b348-f008-4f0e-8ecc-002646756639"
  "le" = 30
  "prefix" = "10.10.9.0/24"
  "updated_at" = "2023-03-30T06:02:11.000Z"
}
instance_exportroutefilters = {
  "export_route_filters" = tolist([
    {
      "action" = "deny"
      "before" = ""
      "created_at" = "2023-03-30T06:02:11.000Z"
      "export_route_filter_id" = "db70b348-f008-4f0e-8ecc-002646756639"
      "ge" = 29
      "le" = 30
      "prefix" = "10.10.9.0/24"
      "updated_at" = "2023-03-30T06:02:11.000Z"
    },
  ])
  "gateway" = "ab937a1c-aa74-4fcc-a5a7-de2f0e3796d4"
  "id" = "2023-03-30 06:02:24.054789 +0000 UTC"
}
```

Case 3: add new export route filter

```
resource ibm_dl_gateway "test_dl_gateway" {
  bgp_asn = 64999
  global = true
  metered = false
  name = "gw_route_filters-dals03"
  speed_mbps = 1000
  type = "connect"
  port = "dc7fdcf4-7d0e-461f-ba48-b67c174034be"
  export_route_filters {
    action = "deny"
    prefix = "10.10.9.0/24"
    ge = 29
    le = 30
  }
  export_route_filters {
    action = "permit"
    prefix = "10.10.9.0/24"
    ge = 25
    le = 27
  }
}
```

```
sushmitham@sushmithas-MacBook-Pro terraform % terraform plan
ibm_dl_gateway.test_dl_gateway: Refreshing state... [id=ab937a1c-aa74-4fcc-a5a7-de2f0e3796d4]
```

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:

~ update in-place
 <= read (data resources)

Apply complete! Resources: 0 added, 1 changed, 0 destroyed.

Outputs:

```
instance_exportroutefilter = {
  "action" = "deny"
  "before" = "4d8f2294-0492-4a5f-b6b3-593a2102a514"
  "created_at" = "2023-03-30T06:08:20.000Z"
  "gateway" = "ab937a1c-aa74-4fcc-a5a7-de2f0e3796d4"
  "ge" = 29
  "id" = "208b7047-f154-4454-bc6b-c072c1707623"
  "le" = 30
  "prefix" = "10.10.9.0/24"
  "updated_at" = "2023-03-30T06:08:20.000Z"
}
instance_exportroutefilters = {
  "export_route_filters" = tolist([
    {
      "action" = "deny"
      "before" = "4d8f2294-0492-4a5f-b6b3-593a2102a514"
      "created_at" = "2023-03-30T06:08:20.000Z"
      "export_route_filter_id" = "208b7047-f154-4454-bc6b-c072c1707623"
      "ge" = 29
      "le" = 30
      "prefix" = "10.10.9.0/24"
      "updated_at" = "2023-03-30T06:08:20.000Z"
    },
    {
      "action" = "permit"
      "before" = ""
      "created_at" = "2023-03-30T06:08:20.000Z"
      "export_route_filter_id" = "4d8f2294-0492-4a5f-b6b3-593a2102a514"
      "ge" = 25
    }
  ])
}
```

```

    "le" = 27
    "prefix" = "10.10.9.0/24"
    "updated_at" = "2023-03-30T06:08:20.000Z"
  },
]
"gateway" = "ab937a1c-aa74-4fcc-a5a7-de2f0e3796d4"
"id" = "2023-03-30 06:08:30.443832 +0000 UTC"
}
sushmitham@sushmithas-MacBook-Pro terraform %

```

Case 4 : create a gateway with Import Route filter

```

resource ibm_dl_gateway "test_dl_gateway" {
  bgp_asn = 64999
  global = true
  metered = false
  name = "gw_route_filters-dals03"
  speed_mbps = 1000
  type = "connect"
  port = "dc7fdcf4-7d0e-461f-ba48-b67c174034be"
  import_route_filters {
    action = "deny"
    prefix = "10.10.9.0/24"
    ge = 25
    le = 29
  }
}

```

```
sushmitham@sushmithas-MacBook-Pro terraform % terraform plan
```

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:

```
+ create
<= read (data resources)
```

Terraform will perform the following actions:

Plan: 1 to add, 0 to change, 0 to destroy.

```
sushmitham@sushmithas-MacBook-Pro terraform % terraform apply
```

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:

```
+ create
<= read (data resources)
```

Terraform will perform the following actions:

```

instance_importroutefilter = {
  "action" = "deny"
  "before" = tostring(null)
  "created_at" = "2023-03-30T06:30:43.000Z"
  "gateway" = "a153b78e-8552-4dc4-b344-98b6e516dd6f"
  "ge" = 25
  "id" = "d67eea06-1556-4d4f-a13f-61133a9e7560"
  "le" = 29
  "prefix" = "10.10.9.0/24"
  "updated_at" = "2023-03-30T06:30:43.000Z"
}
instance_importroutefilters = {
  "gateway" = "a153b78e-8552-4dc4-b344-98b6e516dd6f"
  "id" = "2023-03-30 06:32:22.323235 +0000 UTC"
  "import_route_filters" = tolist([
    {
      "action" = "deny"
      "before" = ""
      "created_at" = "2023-03-30T06:30:43.000Z"
      "ge" = 25
      "import_route_filter_id" = "d67eea06-1556-4d4f-a13f-61133a9e7560"
      "le" = 29
      "prefix" = "10.10.9.0/24"
      "updated_at" = "2023-03-30T06:30:43.000Z"
    }
  ])
}
}

```

Case 5: Modifying the import route filter

```

resource ibm_dl_gateway "test_dl_gateway" {
  bgp_asn = 64999
  global = true
  metered = false
  name = "gw_imroute_filters-dals03"
  speed_mbps = 1000
  type = "connect"
  port = "dc7fdcf4-7d0e-461f-ba48-b67c174034be"

  import_route_filters {
    action = "permit"
    prefix = "10.10.9.0/24"
    ge = 26
    le = 30
  }
}

```

```
sushmitham@sushmithas-MacBook-Pro terraform % terraform plan
ibm_dl_gateway.test_dl_gateway: Refreshing state... [id=a153b78e-8552-4dc4-b344-98b6e516dd6f]
```

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:

```
~ update in-place
<= read (data resources)
```

```
sushmitham@sushmithas-MacBook-Pro terraform % terraform apply
ibm_dl_gateway.test_dl_gateway: Refreshing state... [id=a153b78e-8552-4dc4-b344-98b6e516dd6f]
```

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:

```

~ update in-place
<= read (data resources)

```

Apply complete! Resources: 0 added, 1 changed, 0 destroyed.

Outputs:

```

instance_importroutefilter = {
  "action" = "permit"
  "before" = tostring(null)
  "created_at" = "2023-03-30T06:36:26.000Z"
  "gateway" = "a153b78e-8552-4dc4-b344-98b6e516dd6f"
  "ge" = 26
  "id" = "e99ac7a3-ef79-41c6-88c8-3144bfa91107"
  "le" = 30
  "prefix" = "10.10.9.0/24"
  "updated_at" = "2023-03-30T06:36:26.000Z"
}

instance_importroutefilters = {
  "gateway" = "a153b78e-8552-4dc4-b344-98b6e516dd6f"
  "id" = "2023-03-30 06:36:34.0416 +0000 UTC"
  "import_route_filters" = tolist([
    {
      "action" = "permit"
      "before" = ""
      "created_at" = "2023-03-30T06:36:26.000Z"
      "ge" = 26
      "import_route_filter_id" = "e99ac7a3-ef79-41c6-88c8-3144bfa91107"
      "le" = 30
      "prefix" = "10.10.9.0/24"
      "updated_at" = "2023-03-30T06:36:26.000Z"
    }
  ]),
}

```

Case 6: add new import route filter

```

resource ibm_dl_gateway "test_dl_gateway" {
  bgp_asn = 64999
  global = true
  metered = false
  name = "gw_imroute_filters-dals03"
  speed_mbps = 1000
  type = "connect"
  port = "dc7fdcf4-7d0e-461f-ba48-b67c174034be"
  import_route_filters {
    action = "permit"
    prefix = "10.10.9.0/24"
    ge = 26
    le = 30
  }

  import_route_filters {
    action = "deny"
    prefix = "10.10.9.0/24"
    ge = 25
    le = 29
  }
}

```

ibm_dl_gateway.test_dl_gateway: Refreshing state... [id=a153b78e-8552-4dc4-b344-98b6e516dd6f]

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:

```

~ update in-place
<= read (data resources)

```

```

sushmitham@sushmithas-MacBook-Pro terraform % terraform apply
ibm_dl_gateway.test_dl_gateway: Refreshing state... [id=a153b78e-8552-4dc4-b344-98b6e516dd6f]

```

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:

```

~ update in-place
<= read (data resources)

```

Apply complete! Resources: 0 added, 1 changed, 0 destroyed.

Outputs:

```

instance_importroutefilter = {
  "action" = "permit"
  "before" = "c406898d-0804-4fe8-9697-3f09addb7c2a"
  "created_at" = "2023-03-30T06:42:06.000Z"
  "gateway" = "a153b78e-8552-4dc4-b344-98b6e516dd6f"
  "ge" = 26
  "id" = "92b33a48-4e1a-491d-8fc0-4dca5823d35a"
  "le" = 30
  "prefix" = "10.10.9.0/24"
  "updated_at" = "2023-03-30T06:42:06.000Z"
}

instance_importroutefilters = {
  "gateway" = "a153b78e-8552-4dc4-b344-98b6e516dd6f"
  "id" = "2023-03-30 06:42:15.812998 +0000 UTC"
  "import_route_filters" = tolist([
    {
      "action" = "permit"
      "before" = "c406898d-0804-4fe8-9697-3f09addb7c2a"
      "created_at" = "2023-03-30T06:42:06.000Z"
      "ge" = 26
      "import_route_filter_id" = "92b33a48-4e1a-491d-8fc0-4dca5823d35a"
      "le" = 30
      "prefix" = "10.10.9.0/24"
      "updated_at" = "2023-03-30T06:42:06.000Z"
    }
  ]),
}

```

```

    {
      "action" = "deny"
      "before" = ""
      "created_at" = "2023-03-30T06:42:06.000Z"
      "ge" = 25
      "import_route_filter_id" = "c406898d-0804-4fe8-9697-3f09addb7c2a"
      "le" = 29
      "prefix" = "10.10.9.0/24"
      "updated_at" = "2023-03-30T06:42:06.000Z"
    },
  ]),
}

```

Case 7.1: have both import /export filter -> add to the existing filter list Case

```

resource ibm_dl_gateway "test_dl_gateway" {
  bgp_asn = 64999
  global = true
  metered = false
  name = "gw_imroute_filters-dals03"
  speed_mbps = 1000
  type = "connect"
  port = "dc7fdcf4-7d0e-461f-ba48-b67c174034be"

  export_route_filters {
    action = "deny"
    prefix = "10.10.9.0/24"
    ge = 29
    le = 30
  }
  import_route_filters {
    action = "permit"
    prefix = "10.10.9.0/24"
    ge = 26
    le = 30
  }
}

```

```

sushmitham@sushmithas-MacBook-Pro terraform % terraform plan
ibm_dl_gateway.test_dl_gateway: Refreshing state... [id=a153b78e-8552-4dc4-b344-98b6e516dd6f]

```

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:

```

~ update in-place
<= read (data resources)

```

Apply complete! Resources: 0 added, 1 changed, 0 destroyed.

Outputs:

```

instance_exportroutefilter = {
  "action" = "deny"
  "before" = tostring(null)
  "created_at" = "2023-03-30T06:46:19.000Z"
  "gateway" = "a153b78e-8552-4dc4-b344-98b6e516dd6f"
  "ge" = 29
  "id" = "4a2fb4fb-d5f6-4bfb-90fd-86e31613446e"
  "le" = 30
  "prefix" = "10.10.9.0/24"
  "updated_at" = "2023-03-30T06:46:19.000Z"
}
instance_exportroutefilters = {
  "export_route_filters" = tolist([
    {
      "action" = "deny"
      "before" = ""
      "created_at" = "2023-03-30T06:46:19.000Z"
      "export_route_filter_id" = "4a2fb4fb-d5f6-4bfb-90fd-86e31613446e"
      "ge" = 29
      "le" = 30
      "prefix" = "10.10.9.0/24"
      "updated_at" = "2023-03-30T06:46:19.000Z"
    },
  ])
  "gateway" = "a153b78e-8552-4dc4-b344-98b6e516dd6f"
  "id" = "2023-03-30 06:46:52.727336 +0000 UTC"
}
instance_importroutefilter = {
  "action" = "permit"
  "before" = tostring(null)
  "created_at" = "2023-03-30T06:46:46.000Z"
  "gateway" = "a153b78e-8552-4dc4-b344-98b6e516dd6f"
  "ge" = 26
  "id" = "b09718d3-98cb-4201-a227-d3cbe3e5c1ea"
  "le" = 30
  "prefix" = "10.10.9.0/24"
  "updated_at" = "2023-03-30T06:46:46.000Z"
}
instance_importroutefilters = {
  "gateway" = "a153b78e-8552-4dc4-b344-98b6e516dd6f"
  "id" = "2023-03-30 06:46:53.306027 +0000 UTC"
  "import_route_filters" = tolist([
    {
      "action" = "permit"
      "before" = ""
      "created_at" = "2023-03-30T06:46:46.000Z"
      "ge" = 26
      "import_route_filter_id" = "b09718d3-98cb-4201-a227-d3cbe3e5c1ea"
      "le" = 30
      "prefix" = "10.10.9.0/24"
      "updated_at" = "2023-03-30T06:46:46.000Z"
    },
  ])
}

```

Case 8 :modify both filterers

```
resource ibm_dl_gateway "test_dl_gateway" {
  bgp_asn = 64999
  global = true
  metered = false
  name = "gw_imroute_filters-dals03"
  speed_mbps = 1000
  type = "connect"
  port = "dc7fdcf4-7d0e-461f-ba48-b67c174034be"

  export_route_filters {
    action = "permit"
    prefix = "10.10.9.0/24"
    ge = 25
    le = 27
  }

  import_route_filters {
    action = "deny"
    prefix = "10.10.9.0/24"
    ge = 28
    le = 29
  }
}
```

```
sushmitham@sushmithas-MacBook-Pro terraform % terraform plan
ibm_dl_gateway.test_dl_gateway: Refreshing state... [id=a153b78e-8552-4dc4-b344-98b6e516dd6f]
```

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:

```
~ update in-place
<= read (data resources)
```

Plan: 0 to add, 1 to change, 0 to destroy.

```
sushmitham@sushmithas-MacBook-Pro terraform % terraform apply
ibm_dl_gateway.test_dl_gateway: Refreshing state... [id=a153b78e-8552-4dc4-b344-98b6e516dd6f]
```

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:

```
~ update in-place
<= read (data resources)
```

Apply complete! Resources: 0 added, 1 changed, 0 destroyed.

Outputs:

```
instance_exportroutefilter = {
  "action" = "permit"
  "before" = tostring(null)
  "created_at" = "2023-03-30T06:50:20.000Z"
  "gateway" = "a153b78e-8552-4dc4-b344-98b6e516dd6f"
  "ge" = 25
  "id" = "6e0a78f2-836a-4895-aea2-1f45dbfce805"
  "le" = 27
  "prefix" = "10.10.9.0/24"
  "updated_at" = "2023-03-30T06:50:20.000Z"
}
instance_exportroutefilters = {
  "export_route_filters" = tolist([
    {
      "action" = "permit"
      "before" = ""
      "created_at" = "2023-03-30T06:50:20.000Z"
      "export_route_filter_id" = "6e0a78f2-836a-4895-aea2-1f45dbfce805"
      "ge" = 25
      "le" = 27
      "prefix" = "10.10.9.0/24"
      "updated_at" = "2023-03-30T06:50:20.000Z"
    },
  ])
  "gateway" = "a153b78e-8552-4dc4-b344-98b6e516dd6f"
  "id" = "2023-03-30 06:50:56.618465 +0000 UTC"
}
instance_importroutefilter = {
  "action" = "deny"
  "before" = tostring(null)
  "created_at" = "2023-03-30T06:50:47.000Z"
  "gateway" = "a153b78e-8552-4dc4-b344-98b6e516dd6f"
  "ge" = 28
  "id" = "ce3e7efb-f40c-4000-b8b1-68b854eeb71"
  "le" = 29
  "prefix" = "10.10.9.0/24"
  "updated_at" = "2023-03-30T06:50:47.000Z"
}
instance_importroutefilters = {
  "gateway" = "a153b78e-8552-4dc4-b344-98b6e516dd6f"
  "id" = "2023-03-30 06:50:57.118724 +0000 UTC"
  "import_route_filters" = tolist([
    {
      "action" = "deny"
      "before" = ""
      "created_at" = "2023-03-30T06:50:47.000Z"
      "ge" = 28
      "import_route_filter_id" = "ce3e7efb-f40c-4000-b8b1-68b854eeb71"
      "le" = 29
      "prefix" = "10.10.9.0/24"
      "updated_at" = "2023-03-30T06:50:47.000Z"
    },
  ])
}
```

